

CLAIMS:**1. A communications device comprising:**

a memory adapted to store at least one profile of a user of the device, wherein the said at least one profile contains predetermined attributes and requirements of the user;

a transceiver adapted to transmit information relating to the said requirements to a compatible device and receive information relating to requirements of the said compatible device;

a controller adapted to register a match between the said device and the said compatible device, only when the said attributes match the said requirements of the said compatible device; and

a user alert adapted to alert a user when the controller has established that a match has been made;

wherein the transceiver is further adapted to transmit a first match signal to the compatible device when the controller has established that a match has been made;

wherein the said device does not need to receive information relating to attributes of the said compatible device, in order to register a match with the said compatible device.

2. A communications device according to Claim 1, wherein the user alert is further adapted to alert the user only when the controller has established that a match has been made and that a match signal has been received from the compatible device, said match signal indicating that the compatible device has registered a corresponding match.

3. A communications device according to Claim 1 or 2, wherein the device further comprises a display.

4. A communications device according to Claim 3, wherein the display is adapted to display an indication of the or each profile stored in the device.

5. A communications device according to Claim 4, wherein the device is further adapted to allow the user to designate which of the stored at least one profiles the user designates as active; the said memory is further adapted to store an indication of the

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active profile or profiles; and the communicator is further adapted to exchange information with a compatible device based only on the active profile or profiles.

6. A communications device according to Claim 5, wherein the device further comprises a keypad, said keypad being adapted to allow a user to activate a profile from those stored in the device.
7. A communications device according to Claim 5 or 6, wherein the display is further adapted to display an indication of the active profiles.
8. A communications device according to any preceding claim, wherein the memory comprises a combination of volatile and non-volatile memory.
9. A communications device according to any preceding claim, wherein the user alert is adapted to provide a visual indication to the user.
10. A communications device according to Claim 9 when dependent on Claim 3, wherein the user alert is adapted to provide the visual indication using the display.
11. A communications device according to Claim 9, wherein the user alert comprises at least one LED.
12. A communications device according to any preceding claim, wherein the user alert is adapted to provide an audible indication to the user.
13. A communications device according to any preceding claim, wherein the user alert is adapted to provide a vibrating indication to the user.
14. A communications device according to any preceding claim, wherein the or each said profile comprises a self-describing data file, each self-describing data file comprising at least one field.

15. A communications device according to any preceding claim, wherein the or each said profile comprises at least one of a plurality of possible field types.

16. A communications device according to any preceding claim, wherein the or each said profile comprises one or more sets of fields of a keyword type, said one or more sets of fields allowing matching to be performed against user determined free text.

17. A communications device according to any preceding claim, wherein the or each said profile comprises a field that can contain a mandatory flag, the said mandatory flag indicating to the device whether blank fields are required to always or never be matched against.

18. A communications device according to any preceding claim, wherein the memory is adapted to store multiple instances of the same profile type; wherein the device is adapted to: match all the multiple instances of the same profile in a matching process that involves transmitting a two dimensional matrix of flags that indicate a match or no match, the columns of said matrix being indexed on the instances of the profile stored in the memory; receive a corresponding two dimensional matrix from the compatible device; transform the received matrix; and compare the transformed received matrix with the sent matrix to identify any and all matches for this profile type.

19. A communications device according to any preceding claim, wherein the or each said profile comprises a header section, the header section comprising a unique profile ID of the respective profile.

20. A communications device according to Claim 19, wherein the header section is the only section of the or each said profile that cannot be modified by the user.

21. A communications device according to any preceding claim, wherein the attributes and requirements of the or each said profile are determined by the user.

22. A communications device according to any preceding claim, wherein the device is adapted to communicate with a suitably programmed computer.

23. A communications device according to Claim 22, wherein the device is adapted to communicate with the suitably programmed computer using a cable connection between the device and the suitably programmed computer.
24. A communications device according to Claim 22, wherein the device is adapted to communicate with the suitably programmed computer using the said transceiver.
25. A communications device according to any of Claims 22 to 24, wherein the said device is adapted to store the populated at least one profile, upon receipt of information relating to the said attributes and requirements from the said computer.
26. A communications device according to one of Claims 22 to 25, wherein the said device is adapted to store new profile types, upon receipt of information relating to the said new profile types from the said suitably programmed computer.
27. A communications device according to Claim 26, wherein the said information relating to the said new profile types has been downloaded to the said suitably programmed computer from any of the Internet, an email attachment, or a MMS attachment.
28. A communications device according to any preceding claim, wherein the device further comprises a timer and a timing register, and wherein the timing register is adapted to store timing information for the or each said profile.
29. A communications device according to Claim 28, wherein the timing information comprises a predetermined active period for the or each said profile.
30. A communications device according to Claim 27 or 28, wherein the timing information comprises a schedule relating to the activation and deactivation of the or each said profile at user defined times.

31. A communications device according to any preceding claim, wherein the device is further adapted to store a unique ID of the device.

32. A communications device according to any preceding claim, wherein the memory comprises a recent encounters cache, the said recent encounters cache comprising a list of received unique IDs of compatible devices that have communicated with the device.

33. A communications device according to any preceding claim, wherein the device is further adapted to allow the user to blacklist compatible devices after the establishment of a match, and wherein the memory comprises a blacklist cache, the said blacklist cache comprising a list of received unique IDs of compatible devices that the user has blacklisted.

34. A communications device according to any preceding claim, wherein the device further comprises a probe alert, the said probe alert being adapted to aid the user physically to locate the user of the compatible device once a match has been established.

35. A communications device according to Claim 34, wherein the said probe alert is adapted to provide a visual location indication to the user.

36. A communications device according to Claim 35, wherein the said probe alert comprises at least one LED.

37. A communications device according to one of Claims 34 to 36, wherein said probe alert is adapted to provide the visual location indication to the user using the display.

38. A communications device according to one of Claims 34 to 37, wherein the said probe alert is adapted to provide an audible location indication.

39. A communications device according to one of Claims 34 to 38, wherein the said probe alert is adapted to provide a vibrating location indication.

40. A communications device according to any preceding claim, wherein the device is further adapted to store at least one handle, the or each said handle generally comprising a string of characters, and wherein the device is adapted to enable the or each said handle to be sent to the compatible device on the establishment of a match.

41. A communications device according to Claim 40, wherein the or each said handle comprises information pertaining to the established match.

42. A communications device according to any preceding claim, wherein the memory is further adapted to store a match log, the said match log comprising information regarding previously established matches.

43. A communications device according to Claim 42 when dependent on Claim 40 or 41, wherein the match log comprises a unique ID of each previously matched compatible device along with match information comprised in any received handles.

44. A communications device according to Claim 42 or 43, wherein the match log further comprises information regarding details of communications between the device and compatible devices that did not result in a match.

45. A communications device according to any of Claims 42 to 44 when dependent on Claim 22, wherein the device is further adapted to upload the contents of the match log to the suitably programmed computer.

46. A communications device according to Claim 19 or any claim dependent upon Claim 19, wherein the memory is adapted to store only profiles that comprise a predetermined flag in the header section.

47. A communications device according to Claim 46, wherein the predetermined flag is formed from a number of bits of the Profile ID, and wherein the device is adapted

to only match with compatible devices that have at least one stored profile with an identical corresponding bit set of the predetermined flag.

48. A communications device according to any preceding claim, wherein the transceiver is adapted to exchange information with the compatible device using short range wireless communications.

49. A communications device according to Claim 48, wherein the short range wireless communications employs radio or microwave transmission.

50. A communications device according to Claim 48, wherein the wireless communication employs Bluetooth or Wi-Fi transmission.

51. A communications device according to Claim 48, wherein the wireless communication employs any location aware telecommunications network.

52. A communications device according to Claim 51, wherein the location aware telecommunications network employs 3G transmission.

53. A communications device according to any preceding claim, wherein the transceiver is adapted to exchange information with the compatible device using long range wireless communications.

54. A communications device according to any preceding claim, wherein the device is a portable device.

55. A communications device according to Claim 54, wherein the portable device is any one of, or a combination of: a mobile telephone, a PDA, a pager, a palmtop computer, a notebook computer or a laptop computer.

56. A communications device according to Claim 55, wherein the device is further adapted to perform any one of, or a combination of: populating the or each said profile,

creating new profiles, connecting to the Internet or accessing email or MMS attachments and downloading new profiles.

57. A communications device according to any of Claims 1 to 53, wherein the device is not portable.

58. A communications device according to Claim 57, wherein the device is any of: a personal computer, workstation, server, or terminal.

59. A communications device according to Claim 57 or 58, wherein the device is adapted to perform any one of, or a combination of: populating the or each said profile, creating new profiles, connecting to the Internet or accessing email or MMS attachments and downloading new profiles.

60. A communications device according to Claim 14, or any claim dependent upon Claim 14, wherein the memory is adapted to store at least one profile that is a symmetric profile, the said symmetric profile comprising a set of attributes and requirements fields which is adapted to be symmetric with respect to that of a compatible device.

61. A communications device according to Claim 14, or any claim dependent upon Claim 14, wherein the memory is adapted to store at least one profile that is an asymmetric profile, the said asymmetric profile comprising a set of attributes and requirements fields that is adapted to be asymmetric with respect to that of a compatible device.

62. A communications device according to Claim 61 when dependent on Claim 19, wherein the device is adapted to store an indication of whether the user is a provider or a finder in the profile.

63. A communications device according to Claim 61 or 62, wherein the said asymmetric profile comprises multiple instances of the attributes of the user.

64. A communications device according to any of Claims 61 to 63, wherein the device is adapted to populate the attributes of the said asymmetric profile by referencing an external database, the said external database being stored on any of a LAN, a WAN, personal computer, workstation, server, terminal or the Internet.

65. A communications device according to Claim 64, wherein the device is adapted to store the results of the reference to the external database after a match has been established, if the user of the compatible device becomes out of range before the user of the device is alerted to the match; and alert the user to the match if the user of the compatible device becomes in range again within a predetermined time period, without referring to the external database again.

66. A communications device according to Claim 51 or any claim dependent on Claim 51, wherein the device is adapted to upload the or each said profile to a central database, said central database being adapted to store location information relating to the users; and match users based on the attributes and requirements of the or each said profile and the location information relating to the users.

67. A communications device substantially as hereinbefore described with reference to the accompanying drawings.

68. A communications method comprising the steps of:

storing at least one profile of a user in a memory of a communications device, wherein the or each said profile contains predetermined attributes and requirements of the user;

using a transceiver of the device to transmit information relating to the said requirements to a compatible device and receive information relating to requirements of the said compatible device;

using a controller to register a match between the said device and the said compatible device, only when the said attributes match the said requirements of the said compatible device;

using a user alert to alert a user when the controller has established that a match has been made; and

using the transceiver to transmit a first match signal to the said compatible device when the controller has established that a match has been made;

wherein the said device does not need to receive information relating to attributes of the said compatible device, in order to register a match with the said compatible device.

69. A communications method according to Claim 68, wherein the user is alerted only when a match has been registered and a match signal has been received from the compatible device, the said match signal indicating that the compatible device has registered a corresponding match.

70. A communications method according to Claim 68 or 69, further comprising the step of using a display to display an indication of the profiles stored in the device.

71. A communications method according to Claim 70, further comprising the steps of allowing the user to designate which of the stored at least one profiles are designated as active; storing an indication of the active profile or profiles in the memory; and exchanging information with a compatible device based only on the active profile or profiles.

72. A communications method according to Claim 71, further comprising the step of using a keypad to activate a profile from those stored in the device.

73. A communications method according to Claim 72, further comprising the step of using the display to display an indication of the active profile or profiles.

74. A communications method according to any of claims 68 to 73, wherein the memory comprises a combination of volatile and non-volatile memory.

75. A communications method according to any of claims 68 to 74, further comprising the step of using the user alert to provide a visual indication to the user.

76. A communications method according to Claim 75 when dependent on Claim 70, further comprising the step of providing the visual indication using the display.

77. A communications method according to Claim 75, further comprising the step of providing the visual indication using at least one LED.

78. A communications method according to any of Claims 68 to 77, further comprising the step of using the user alert to provide an audible indication to the user.

79. A communications method according to any of claims 68 to 78, further comprising the step of using the user alert to provide a vibrating indication to the user.

80. A communications method according to any of Claims 68 to 79, wherein the or each said profile comprises a self-describing data file, each self-describing data file comprising at least one field.

81. A communications method according to any of Claims 68 to 80, wherein the or each said profile comprises at least one of a plurality of possible field types.

82. A communications method according to any of Claims 68 to 81, wherein the or each said profile comprises one or more sets of fields of a keyword type, said one or more sets of fields allowing matching to be performed against user determined free text.

83. A communications method according to any of Claims 68 to 82, wherein the or each said profile comprises a field that can contain a mandatory flag, the said mandatory flag indicating to the device whether blank fields are required to always or never be matched against.

84. A communications method according to any of Claims 68 to 83, further comprising the steps use storing multiple instances of the same profile type in the memory; matching all the multiple instances of the same profile in a matching process that involves transmitting a two dimensional matrix of flags that indicate a match or no match, the columns of said matrix being indexed on the instances of the profile stored in the memory; receiving a corresponding two dimensional matrix from the compatible device; transforming the received matrix; and comparing the transformed received matrix with the sent matrix to identify any and all matches for this profile type.

85. A communications method according to any of Claims 68 to 84, wherein the or each said profile comprises a header section, the header section comprising a unique profile ID of the respective profile.
86. A communications method according to Claim 85, wherein the header section is the only section of the or each said profile that cannot be modified by the user.
87. A communications method according to any of Claims 68 to 86 wherein the user determines the attributes and requirements of the at least one profile.
88. A communications method according to any of Claims 65 to 87, wherein the device communicates with a suitably programmed computer.
89. A communications method according to Claim 88, wherein the device communicates with the suitably programmed computer using a cable connection between the device and the suitably programmed computer.
90. A communications method according to Claim 88, wherein the device communicates with the suitably programmed computer using the said transceiver.
91. A communications method according to any of Claims 88 to 90, wherein the device stores the populated at least one profile, upon receipt of information relating to the said attributes and requirements from the said computer.
92. A communications method according to one of Claims 88 to 91, wherein the device stores new profile types, upon receipt of information relating to said new profile types from said suitably programmed computer.
93. A communications method according to Claim 92, wherein the said information relating to the said new profile types is downloaded to said suitably programmed computer from any of the Internet, an email attachment or MMS attachment.

94. A communications method according to any of Claims 68 to 93, further comprising the step of storing timing information for the or each said profile in a timing register.

95. A communications method according to Claim 94, wherein the timing information comprises a predetermined active period for the or each said profile.

96. A communications method according to Claim 94 or 95, wherein the timing information comprises a schedule relating to the activation and deactivation of the or each said profile at user defined times.

97. A communications method according to any of Claims 68 to 96, wherein the device stores a unique ID of the device.

98. A communications method according to any of Claims 68 to 97, wherein the memory comprises a recent encounters cache, the said recent encounters cache comprising a list of received unique IDs of compatible devices that have communicated with the device.

99. A communications method according to any of Claims 68 to 98 wherein the user can optionally blacklist compatible devices after the establishment of a match, and wherein the memory comprises a blacklist cache, the said blacklist cache comprising a list of received unique IDs of compatible devices that the user has blacklisted.

100. A communications method according to any of Claims 68 to 99, further comprising the step of using a probe alert to aid the user to physically locate the user of the compatible device once a match has been established.

101. A communications method according to Claim 100, wherein the said probe alert provides a visual location indication to the user.

102. A communications method according to Claim 101, wherein the said probe alert comprises at least one LED.

103. A communications method according to any of Claims 100 to 102, wherein the said probe alert uses the display to provide the visual location to the user.

104. A communications method according to any of Claims 100 to 103, wherein the said probe alert provides an audible location indication to the user.

105. A communications method according to any of Claims 100 to 104, wherein the said probe alert provides a vibrating location indication.

106. A communications method according to any of Claims 68 to 105, wherein at least one handle of the user is stored in the device, the or each said handle generally comprising a string of characters, and wherein the device sends the or each said handle to the compatible device on the establishment of a match.

107. A communications method according to Claim 106, wherein the or each said handle comprises information pertaining to the established match.

108. A communications method according to any of Claims 68 to 107, wherein a match log is stored in the memory, the said match log comprising information regarding previously established matches.

109. A communications method according Claim 108 when dependent on Claim 106 or 107, wherein the match log comprises a unique ID of each previously matched compatible device along with any received handles.

110. A communications method according to Claim 108 or 109, wherein the match log further comprises information regarding details of communications between the device and compatible devices that did not result in a match.

111. A communications method according to any of Claims 108 to 110 when dependent on Claim 88, wherein the device uploads the contents of the match log to the suitably programmed computer.

112. A communications method according to Claim 85 or any claim dependent upon Claim 85, wherein only profiles that comprise a predetermined flag in the header section are stored in the memory.

113. A communications method according to Claim 112, wherein the predetermined flag is formed from a number of bits of the Profile ID, and wherein the device only attempts to match with compatible devices that have at least one stored profile with an identical corresponding bit set of the predetermined flag.

114. A communications method according to any of Claims 68 to 113, wherein the transceiver exchanges information with the compatible device using short range wireless communications.

115. A communications method according to Claim 114, wherein the short range wireless communications employs radio or microwave transmission.

116. A communications method according to Claim 114, wherein the wireless communications employs Bluetooth or Wi-Fi transmission.

117. A communications method according to Claim 114, wherein the wireless communication employs any location aware telecommunications network.

118. A communications method according to Claim 117, wherein the location aware telecommunications network employs 3G transmission.

119. A communications method according to any of Claims 68 to 118, wherein the transceiver exchanges information with the compatible device using long range wireless communications.

120. A communications method according to any of Claims 68 to 119, wherein the device is a portable device.

121. A communications method according to Claim 120, wherein the portable device is any one of or a combination of: a mobile telephone, a PDA, a pager, a palmtop computer, a notebook computer or a laptop computer.

122. A communications method according to Claim 121, further comprising the steps of using the portable integrated device to perform any one of, or a combination of: populating the or each said profile, creating new profiles, connecting to the Internet or accessing email or MMS attachments and downloading new profiles.

123. A communications method according to any of Claims 68 to 119, wherein the device is not portable.

124. A communications method according to Claim 123, wherein the device is any of: a personal computer, workstation, server, or terminal.

125. A communications method according to Claim 123 or 124, further comprising the steps of using the device to perform any one of, or a combination of: populating the or each said profile, creating new profiles, connecting to the Internet or accessing email or MMS attachments and downloading new profiles.

126. A communications method according to Claim 80, or any claim dependent upon Claim 80, wherein at least one profile that is a symmetric profile is stored in the memory, the said symmetric profile comprising a set of attributes and requirements fields which is adapted to be symmetric with respect to that of a compatible device.

127. A communications method according to Claim 80, or any claim dependent upon Claim 80, wherein the memory is adapted to store at least one profile that is an asymmetric profile, the said asymmetric profile comprising a set of attributes and requirements fields that is adapted to be asymmetric with respect to that of a compatible device.

128. A communications method according to Claim 127 when dependent on Claim 85, wherein the device is adapted to store an indication of whether the user is a provider or a finder in the profile.

129. A communications method according to Claim 127 or 128, wherein the said asymmetric profile comprises multiple instances of the attributes of the user.

130. A communications method according to any of Claims 127 to 129, wherein the device populates the attributes of the said asymmetric profile by referencing an external database, the said external database being stored on any of a LAN, a WAN, personal computer, workstation, server, terminal or the Internet.

131. A communications method according to Claim 130, further comprising the steps of storing the results of the reference to the external database after a match has been established, if the user of the compatible device becomes out of range before the user of the device is alerted to the match; and alerting the user to the match if the user of the compatible device becomes in range again within a predetermined time period, without referring to the external database again.

132. A communications method according to Claim 117 or any claim dependent on Claim 117, further comprising the steps of uploading the or each said profile to a central database, said central database being adapted to store location information relating to the users; and matching users based on the attributes and requirements of the or each said profile and the location information relating to the users.

133. A communications method substantially as hereinbefore described with reference to the accompanying drawings.

134. A communications system comprising at least two communication devices as claimed in Claim 60, wherein the controller of each device is respectively adapted to register a match between the device and the other device based on the symmetric profile, wherein the system is adapted to treat the attributes and requirements of each respective user equally.

135. A communications system comprising at least two communication devices as claimed in Claim 61, wherein the controller of each device is respectively adapted to register a match between the device and the other device based on the asymmetric profile, wherein the system is adapted to treat the attributes and requirements of each respective user differently.